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ABSTRACT

A study investigated the magnitude of the relationship between measures of teacher immediacy and teacher enthusiasm and their relative contributions to student evaluations of instruction (SEI) and students' course grades. It was argued that immediacy and enthusiasm are descriptors of the two dimensions of effective college teaching espoused by Lowman (1984). Respondents for the study were 421 students from upper division communication classes at two major universities in the southwest. Canonical analysis indicated a strong positive relationship between immediacy and enthusiasm. Analyses of variance crossing levels of teacher enthusiasm did reveal differences in SEI and course grades consistent with Lowman's (1984) conceptualization. However, regression analyses showed enthusiasm to be the more direct contributor to SEI, and that neither construct was a direct contributor to differences in course grades. (One figure and 5 tables of data are included; 39 references are attached.) (Author/SR)

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Immediacy and Enthusiasm as Separate Dimensions of Effective College Teaching: A Test of Lowman's Model on Student Evaluation of Instruction and Course Grades

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Immediacy and Enthusiasm as Separate Dimensions of Effective College Teaching: A Test of Lowman's Model on Student Evaluation of Instruction and Course Grades

Abstract

The purpose of this study was to determine the magnitude of the relationship between measures of teacher immediacy and teacher enthusiasm and their relative contributions to student evaluations of instruction (SEI) and students' course grades. Immediacy and enthusiasm were argued to be descriptors of the two dimensions of effective college teaching espoused by Lowman (1984). Canoncial analysis indicated a strong positive relationship between immediacy and enthusiasm. Analyses of variance crossing levels of teacher enthusiasm and teacher immediacy did reveal differences in SEI and course grades consistent with Lowman's (1984) conceptualization. However, regression analyses showed enthusiasm to be the more direct contributor to SEI, and that neither construct was a direct contributor to differences in course grades.

Immediacy and Enthusiasm as Separate Dimensions of Effective College Teaching: A Test of Lowman's Model on Student Evaluation of Instruction and Course Grades

Findings from a considerable amount of instructional communication research over the past twelve years clearly demonstrate that classroom outcomes for students are significantly related to teachers' nonverbal immediacy behaviors (Andersen, 1979; Christophel, 1990; Gorham & Chrisophel, 1990; Gorham & Zakahi, 1990; Kelley & Gorham, 1988; Richmond, Gorham, & McCroskey, 1987). In a similar line of investigation, educational researchers have shown student outcomes to be significantly related to teacher enthusiasm (Bettencourt, Gillett, Gall, & Hull, 1983; Rosenshine & Furst, 1971; Dunkin & Barnes, 1986). Both lines of research address theoretical links between teacher behavior and student learning (Dunkin & Barnes, 1986; Gorham & Zakahi, 1990; Norton, 1983). Teacher immediacy and enthusiasm are conceptually similar in that both refer to sets of low-inference teacher behaviors that at their most basic levels express teacher feelings and strike student attention (Andersen, 1979; Rosenshine & Furst, 1971). Subsequently, the stimulus sets of common operationalizations of the two constructs are markedly similar (compare Andersen, Andersen, & Jensen, 1979 to Collins, 1978 and Bettencourt et. al., 1983). Although other similar constructs have received attention -- for example, friendly and animated communicator styles (Norton, 1983) and sociability and extraversion dimensions of credibility (Beatty & Zahn, 1990; McCroskey, Holdridge, & Toomb, 1974) -- no studies have examined directly the relationship between teacher immediacy and teacher enthusiasm or their relative contributions to variations in students' classroom experiences.

As will be explained shortly, the two constructs are purported to serve different primary functions as teacher behaviors, but existing research provides very little evidence as to which one is more or less important relative to the other for certain student outcome variables. Such evidence would help extend developing models of communication in the classroom and models of teaching effectiveness (e.g., Gorham & Zakahi, 1990). Moreover, such evidence would help weld two separate lines of research in the fields of communication and education which share common concerns for improving student's classroom learning and teachers' classroom teaching. The purpose of this study, then, was to determine the magnitude of relationship between measures of teacher immediacy and teacher enthusiasm and their relative influences on specific

student outcome variables (student evaluations of instruction and students' course grades). This purpose is framed by Lowman's (1984) model of effective college teaching. The model is described relative to teacher immediacy and enthusiasm following a definitional contrast of the two constructs.

Teacher Immediacy versus Teacher Enthusiasm

As two different but overlapping forms of the more general concept "nonverbal expressiveness" (Andersen & Withrow, 1981), teacher immediacy and teacher enthusiasm share similar conceptual and constituent definitions. First, the conceptual similarities. Teacher immediacy is defined as a set of behaviors which reveals a teacher's willingness to approach and be approached by students, signals availabiltiy for interaction with students, and displays warmth, caring, or liking for students (Andersen, 1979; Mehrabian, 1981). Put another way, immediacy is a teacher's communication of affection, inclusion, and involvement with students (Burgoon & Hale, 1984). By contrast, teacher enthusiasm can be defined as a set of behaviors that indicates a teacher's level of energy, excitement, and motivation regarding the instructional task at hand (Collins, 1978). It can be equated with the animated communicator style and considered a component of the dramatic style, as distinguished from immediacy which may be more equivalent to the friendly, attentive, and relaxed communicator styles (Norton, 1983).

The constituent similarities between teacher immediacy and enthusiasm are pronounced. Andersen et. al. (1979) validated several specific behavioral indicants of teacher nonverbal immediacy. The behavior of nonverbally immediate instructors compared to that of less immediate instructors consists of more eye contact, more movement, more relaxed body position, more gestures, more direct body orientation, more smiling, more vocal expressiveness, and a closer physical proximity to students. By comparison, Collins (1978) identified and Bettencourt et. al. (1983) validated eight categories of behavior as indicators of teacher enthusiasm: sudden changes in speech rate, volume, and tone (vocal delivery); wide opened eyes, raised eyebrows, eye contact with entire class (eye behavior); frequent demonstrative movements of body, hands, arms, head, and face (gestures); walking around the room, changes in pace, bending, reaching (general body movements); vibrant, demonstrative expressions of surprise, sadness, joy, thoughtfulness, awe, and excitement (facial expressions); being exhuberant, dynamic, and active, showing vitality and drive (overall energy); using highly descriptive and varied language (word use); and quickly and vigorously accepting

students' ideas and feelings, praising and encouraging them in a nonthreatening manner (acceptance of ideas/feelings).

It is the strong similarity in the specific behaviors comprising the teacher immediacy and enthusiasm constructs that points to a need to contrast them empirically. However, their conceptual definitions point to their separate functions for teaching and learning and to the likelihood that they differentially contribute to student outcomes. For example, teacher immediacy more clearly serves a social/relational function in that it provides for identification between teacher and students, helps define and structure the teacher-student relationship, provides a means for emotional expression, and enhances social influence and facilitation between teacher and students (Burgoon, Buller, & Woodall, 1989). On the other hand, following the five functions of nonverbal behavior described by Ekman and Friesen (1969), teacher enthusiasm would seem more conducive to students' processing and comprehension of instructional messages by repeating, substituting, complementing, contradicting, or emphasizing the teacher's verbal messages (Burgoon et. al., 1989). This is not to say that teacher immediacy has little impact on student cognitive learning, for Kelly & Gorham (1988) showed teacher immediacy to directly affect student recall of information; nor does it mean that teacher enthusiasm has little to do with the teacher/student relationship, for Feldman's (1976) studies confirm that students prefer enthusiastic over nonenthusiastic teachers. Rather, the apparent difference in primary functions of immediacy and enthusiasm substantiates the potential for their making nonequivalent contributions to students' classroom experiences. Some instructors will be highly enthusiastic and less immediate in their teaching, while others will be less enthusiastic but more immediate. The potential for such an interaction has not been explicitly tested by instructional researchers from either the communication or education disciplines. Hence, we know little about any actual differences in student responses and outcomes due to the interaction between immediacy and enthusiasm.

The functional differences between teacher immediacy and teacher enthusiasm are better borne out by comparing the two constructs within a framework of teaching effectiveness. For the present study, Lowman's (1984) model of effective college teaching provided the suitable framework.

A Two-Dimensional Model of Teaching Effectivenss

Lowman's (1984) model combines two dimensions of teaching behavior to distinguish various levels of teaching effectiveness. The dimensions are Intellectual Excitment (IE) and Interpersonal Rapport (IR). Looking at the characteristics of each dimension as layed out by

Lowman, it is quite evident that teacher enthusiasm is a major component of IE and that teacher immediacy is a major component of IR.

The Intellectual Excitement dimension of Lowman's model consists of two general elements: Clarity of presentation and emotional impact. Clairty concerns what the teacher presents. It assumes the teacher's knowledge of content as a basic requisite for effectiveness. Further, however, effectiveness in the teaching skill of clarity entails the instructor's ability to explain concepts to students simply while maintaining the complexity of interrelationships and applications of content; what Lowman calls "clear exposition" (1984, p. 11). According to Lowman, though, clarity is a necessary but insufficient component of generating intellectual excitement. Effective teaching on this dimension also requires "virtuosity at speaking", that is, the use of "voices, gestures, and movements to elicit and maintain attention and to stimulate students' emotions" (pp. 11-12). He asserts that, more than clarity alone, the "ability to stimulate strong positive emotions in students separates the competent from the outstanding college teacher" (p. 12). For many teachers, the use of enthusiastic, animated, and energetic presentation of content provides this sort of stimulation for students. As such, this component of intellectual excitement parallels Norton's (1983) animated communicator style which indicates, in part, that a teacher cares enough about the teaching-learning process that s/he will "expend energy for it" (Norton, 1983, p. 240). The animated style's varied gestures, facial expressions, and eye behavior help the teacher draw attention to critical points and emphasize literal meaning. Moreover, "the most frequent association with an animated style is enthusiasm" (Norton, 1983, p. 240). Hence, the IE dimension of teaching effectiveness represents variations in college teachers' abilities to stimulate student attention, interest, and motivation. The teacher's enthusiastic delivery of clearly stated instructional messages is a primary means of providing such stimulation. In this way, the construct of teacher enthusiasm can be viewed as a key descriptor of the IE dimension.

Research on the correlates and effects of teacher enthusiasm corroborate its role in the IE dimension. Teacher enthusiasm has been shown to enhance student attentiveness, interest, and responsiveness (Burts, McKinney, & Burts, 1985; Ware & Williams, 1977) as well as on-task behavior (Bettencourt et. al., 1983). Teacher enthusiasm has seldom been found to produce significant differences in students' achievement as measured by unit exams over material presented by either enthusiastic or nonenthusiastic teachers (Burts et. al., 1985). But Stewart (1989) recently showed that teacher enthusiasm can interact with students' learning activities, such as notetaking, to produce differential outcomes on unit exams. Thus, in the long run,

teacher enthusiasm could be associated with students' course grades. Finally, teacher enthusiasm is frequently found to relate significantly and directly to student evaluations of instruction (Feldman, 1976; McKinney, Robertson, Gilmore, Ford, & Larkins, 1984).

The Interpersonal Rapport dimension of Lowman's (1984) model concerns the teacher's ability to foster positive relationships with students. As he states it, "students' motivation to work will be reduced if they feel that they are disliked by their instructor or controlled in heavy-handed or autocratic ways" (p. 14). Teachers can reach success on this dimension in two ways. One is by promoting positive emotions in order to make students feel good about themselves, the teacher, and the class. Such positive emotions should serve to motivate students and enhance learning. The second way to succeed on this dimension is to avoid arousing negative emotions. When a teacher communicates with students in ways that breed contempt, anger, disdain, or anxiety, motivation and learning will probably be debilitated (see Christophel, 1990).

The construct of teacher immediacy seems quite appropriate as a descriptor of IR since it serves the function of promoting relational affiliation, inclusion and involvement between teacher and students. Research findings support this contention. Teacher immediacy has often been shown to correlate positively with student affect variables such as attitude toward instructor, attitude toward course (Andersen, 1979), and even attitude toward instructional television (Hackman & Walker, 1990). Also, the construct has been shown to be a significant determinant of cognitive learning (Richmond et. al., 1987; Kelley & Gorham, 1988). Relatedly, studies employing indices of the student/teacher relationship have established its influence on instructional evaluation. For example, Cooper, Stewart, and Gudykunst (1982) found student perceptions of relationship with instructor to be the major predictor from among several variables of student evaluations of teaching effectiveness. Later, Powell and Arthur (1985) found that student perceptions of teachers' affective communication correlated positively with both midterm and end-of-course student ratings of instruction. And the work by Norton and his associates previously established the impact of friendly and attentive communicator styles on teaching effectiveness (Norton, 1983).

Based on the foregoing analysis, then, there is both conceptual and research support for comparing teacher immediacy and teacher enthusiasm within the framework of the Intellectual Excitement and Interpersonal Rapport dimensions of teaching effectivness as described by Lowman

(1984). Crossing the IR and IE dimensions provides a useful scheme in which to examine and interpret differences in students' classroom outcomes.

Crossing the IE and IR dimensions of the model produces nine combinations representing separate and unique styles of college teaching. The full model is depicted in Table 1 and includes corresponding levels of enthusiasm and immediacy for each of the nine cells. Cells 1, 2, and 3 in the lower left-hand quadrant of the table represent teachers who are "less than fully competent" (Lowman, 1984, p. 19). "Marginals" (cell 2) need improvement mainly in the presentation of material since they teach in a style that is usually vague and dull -- they are low on IE. But they are moderate on IR, so they will be liked by some students. As such, Marginals would exhibit a low amount of enthusiasm and a moderate degree of nonverbal immediacy. They would appear to students

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Table 1 About Here

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as being apathetic or lethargic in their instructional presentations, but some students would see them as somewhat approachable and warm. "Adequates" (cell 3) need to better hone their IR skills because they usually display a "cold, distant, highly controlling, unpredictable" style of teaching (Lowman, 1984, p. 18). At best, however, their instructional presentations (IE) are moderately interesting. Thus, Adequates would exhibit a low degree of immediacy and a moderate level of enthusiasm. "Inadequates" (cell 1) need much improvement in both IE and IR. They are neither able to present material effectively nor able to establish positive relationships with students. Their levels of both enthusiasm and immediacy would therefore be low.

In the upper right-hand quadrant of Table 1 are three combinations of IE and IR Lowman says reflect teachers who "have unquestionably attained excellence at college teaching" (1984, p. 19). "Masterful Lecturers" (cell 8) are said to be captivating and motivating in the way they present material and thus to be particularly good at teaching large introductory classes. Their IE is high, whereas their IR is moderate, so they are able to develop some positive rapport with students. As such, Masterful Lecturers would be high in expressing enthusiasm and moderate in showing immediacy. "Masterful Facilitators" (cell 7) nurture close relationships with students through a high degree of IR. They are good in small, advanced classes in which their moderate level of IE coupled with high IR helps to foster independent work in students. Their expression of immediacy would be high while their display of enthusiasm would be moderate. "Complete Masters" (cell 9) represent the most flexible and adaptable college

instructors. They are both highly student-centered and very clear and interesting in their presentation. They are therefore able to perform at levels of excellence in most any instructional setting. They would be high in their expressions of both enthusiasm and immediacy.

Cells 4 and 6 in Table 1, according to Lowman, represent "the most unusual combinations of skills" (1984, p. 19). "Socratics" (cell 4) have a highly student-centered approach to teaching (IR) that is most conducive to very independent, self-motivated learners. These teachers would excell at teaching upper division and graduate seminars, but would do poorly in large lecture classes because of their low IE abilities. They would exhibit a high level of immediacy but a low level of enthusiasm. "Intellectual Authorities" (cell 6) are the conceptual antithesis of Socratics. They are extremely skilled at instructional presentation (IE) but sorely lacking in maintenance of interpersonal relationships with students (IR). Lowman contends that they would do very well for some students and in some instructional settings, but poorly for others. These instructors would exhibit a high level of enthusiasm but a low level of immediacy. Finally, "Competents" (cell 5) are considered to be effective for most students and classes. They are moderate in both IR and IE, and therefore would be moderate in immediacy and enthusiasm. Lowman notes that Socratics and Intellectual Authorities are very few in number, but that most college teachers could be characterized as Competents.

Rationale

Instructional communication researchers recognize teacher immediacy as a critical element in teachers' effective classroom communication and in students' classroom experiences. Educational researchers similarly recognize the importance of teacher enthusiasm in effective teaching and student experiences. Yet the two sets of behaviors have not been systematically examined with respect to their relationship to one another or their unique and joint contributions to measures of student outcomes. Proposed, then, is that tests of the relationship between teacher immediacy and teacher enthusiasm and of their relative contributions to student outcome variables can be carried out and interpreted within the framework of Lowman's (1984) model of effective college teaching.

The foregoing analysis has attempted to establish that proposal on conceptual grounds. At least two recent studies provide empirical support for the proposal.

Meredith (1988) treated a global measure of "instructor's effectiveness" as a criterion variable against which were regressed ten rating scales describing various instructor behaviors (e.g., able to maintain attention, demonstrated genuine interest in

students, was enthusiastic). He found that instructor effectiveness was best predicted by items concerning instructor interest, attention and clarity of explanation (which he said were components of Lowman's IE dimension) and by items reflecting instructor concern for students (which he said were components of Lowman's IR dimension). Relatedly, Runco and Thurston (1987) used social validation procedures to generate a teaching effectiveness instrument derived from student listings of favorable and unfavorable attributes of their instructors. Obtained items clustered into two distinct categories clearly mirroring Lowman's two dimensions -- understanding, concerned, friendly (IR), and enthusiasm, interesting, dynamic (IE). Furthermore, they found average scores of both clusters to correlate significantly with a standard teaching evaluation measure, with the IE-like cluster showing noticeably stronger association (r=.70) with the standard measure than the IR-like cluster (r=.55).

Therefore, the first hypothesis derived from the constituent and general conceptual similarities between the two constructs (e.g., Andersen, 1979), and from previous research showing positive correlations between similar constructs. Most notably, Runco and Thurston (1987) found a correlation of .69 between their IR- ("interpersonal") and IE-like ("presentation") clusters. Meredith (1988) obtained a correlation of .70 between his similar two constructs. And Norton (1983, p. 238) reported correlations around .70 among animated/dramatic and friendly/attentive teacher communicator styles.

H1: A linear composite of student perceptions of instructor nonverbal immediacy will be significantly and positively related to a linear composite of their perceptions of instructor enthusiasm.

The main concern of this study, to determine the relative contributions of teacher immediacy and teacher enthusiasm to student outcome variables, was approached by testing two additional hypotheses and answering two research questions. The two hypotheses derived from placing teacher immediacy and teacher enthusiasm within the framework of Lowman's (1984) two-dimensional model of effective college teaching. Assuming that teacher immediacy adequately describes Interpersonal Rapport (IR) and that teacher enthusiasm adequately reflects Intellectual Excitement (IE), then combining high, moderate, and low levels of immediacy and enthusiasm should produce differences in student evaluations of instruction and students' course grades commensurate with categories of teaching represented by the model.

H2: Student evaluations of instruction will vary in a significant linear fashion across combined levels of teacher enthusiasm (Intellectual Excitement) and teacher immediacy (Interpersonal Rapport), such that:

H2a: Instructors classified as "Masters" will be rated significantly higher on SEIs than will those classified as "Competents" or "Less-than-Competents", and;

H2b: "Competents" will be rated significantly higher on SEIs than will those instructors classified as "Less-than-Competents".

H3: Students' course grades will vary in a significant linear fashion across combined levels of teacher enthusiasm and teacher immediacy, such that:

H3a: Students whose instructors are classified as "Masters" will exhibit significantly higher course grades than will those classified as "Competents" or "Less-than-Competents" and;

H3b: Those whose instructors are classified as "Competents" will exhibit significantly higher course grades than will those classified as "Less-than-Competents".

Student evaluations of instruction and students' course grades were selected as the dependent variables in this study for several reasons (see Allen, Willmington, & Sprague, 1991; Dunkin & Barnes, 1986, p. 769; Rubin, 1991). One, SEIs are a ubiquitous procedure in higher education for assessment of instructors' classroom effectiveness. Two, the study of SEIs in relation to teaching behavior is important because it helps determine more exactly what students repond to when they judge the quality of their learning experiences. Three, SEIs are dependent on student perceptions, and student perceptions underlying teaching evaluations are presumably accurate because they reflect the actual processes engaged in by teachers. Four, since SEIs are intended as an indicator of teaching effectiveness throughout a course, it is reasonable to look at course grades as a similar outcome because they represent the aggregation of students' performances throughout the course. Five, course grades are important to many college constituents -- students, parents, potential employers, even faculty -- and may be the single best indicator of how a course went for some people.

The first research question arose from the considerable body of research on student evaluations of instruction that show factors of teacher presentation ability (e.g., enthusiasm, energy, animation, dynamism) and teacher relationship with students (e.g., rapport, concern, friendliness, sociability) to significantly predict student-based measures of teaching effectiveness (Feldman, 1976; Runco & Thurston, 1987; Meredith, 1988; Cooper et. al., 1983), but no studies have expressly examined the relative contributions of immediacy and enthusiasm to student evaluations. Similarly, the second research question came from the theoretical association between expressive teacher behavior and learning outcomes (Norton, 1983; Rosenshine & Furst, 1971),

recent data indicating that teacher immediacy does impact student learning (Richmond, McCroskey, & Gorham, 1988; Kelley & Gorham, 1988), and more limited findings that enthusiasm can affect cognitive learning (McKinney & Larkins, 1982; McKinney et. al., 1984; Stewart, 1989).

RQ1: Do student perceptions of instructor immediacy or their perceptions of instructor enthusiasm contribute more to students' evaluations of instruction?

RQ2: Do student perceptions of instructor immediacy or their perceptions of instructor enthusiasm contribute more to students' course grades?

Method

Sample

Respondents for this study were 421 students from several, mostly upper division communication classes at two major universities in the Southwest. There were more females (60%) than males (40%). They had a mean age of 25.24 (SD=7.06, range: 18-57). The mean self-reported GPA of the sample was 3.03 (SD=.51, range: 2.5-4.00). As such, generally "poor" students were not represented in this study. The sample was also skewed toward greater numbers of upper division students: 3% freshman, 8% sophmore, 30% junior, 48% senior, and 10% "other" (nondegree students and graduate students).

Procedure

In classes, students were given a questionnaire set containing measures of teacher nonverbal immediacy, teacher enthusiasm, instructional evaluation, and demographic factors. Respondents were instructed to complete the questionnaire packet in reference to a teacher they had in any one of their classes from the previous semester. The advantage of this procedure was that it provided a broad cross-section of instructors from many different departments and colleges at both universities. One arguable disadvantage to this procedure was that it required the analysis of data at the level of the individual student rather than at the level of instructor (Cranton & Smith, 1990). However, we contend that the individual student represents the appropriate unit of analysis since ultimately SEIs and student ratings of teacher immediacy and enthusiasm alike are subject to individual perceptions (Dunkin & Barnes, 1986).

Data were collected in the first two or three weeks of the semester, so it was felt that ability to recall a teacher and course from the previous semester would be relatively strong. Extra credit toward course grades was awarded to students for their participation in the study.

Demographically, the target instructors were reported to be predominantly male (68%; 32% female) with a mean age ranging from 35 to 45 years. In most cases (70%) students reported on an instructor from a required course rather than an elective one (30%). There was no difference on either SEI or students' course grades due to elective versus required courses, nor due to instructor gender.

Measures

Teacher Immediacy. Nonverbal teacher immediacy was measured using the Behavioral Indicants of Immediacy scale (Andersen et. al., 1979). Each of the fifteen items was rated along a five-point continuum anchored with strongly agree=5 and strongly disagree=1. A principle components factor analysis confirmed the scale's original unidimensional structure with all items loading .50 or higher on the first factor. Alpha reliability for the scale in this study was .92. The items appear in Table 2.

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Table 2 About Here

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Teacher Enthusiasm. An eight-item, Likert-type measure of teacher immediacy was constructed based on the category scheme developed by Collins (1978) and validated by Bettencourt et. al. (1983). Students responded to the statement, "On a scale of 1 (not at all enthusiastic) to 5 (very enthusiastic), rate the level of enthusiasm shown by your instructor in his/her: voice, eyes, gestures, body movement, facial expressions, overall energy, language use, and acceptance of students' ideas." A principle components factor analysis of the eight items produced a single-factor solution with all the items loading .73 or higher. Alpha reliability for the measure was .95.

Student Evaluation of Instruction. A thorough search of the literature on instructional evaluation in higher education revealed that global items (e.g., "Rate how this instructor compares to other instructors you've had.") are more valid predictors of instructional effectiveness than are summative items representing numerous specific facets of teaching (e.g., "The instructor uses humor at appropriate times.") (Crooks & Kane, 1981; Peterson, Gunne, Miller, & Rivera, 1984). Global items were used in this study. Five such items were chosen based on their use in other SEI research (Peterson et. al., 1984): "The instructor's teaching effectiveness," "The instructor's lecturing skills," "The instructor's discussion skills," "The usefulness of information gained from the instructor," and "Your overall recommendation of the course to other students." The five items were preceded by the statement, "Rate each of the following items about your instructor on the scale of 1 (very poor), 2 (poor), 3 (average), 4 (good), or 5

(excellent)." A principle components factor analysis of the items obtained a single-factor solution with all loadings exceeding .75. Combining the items to derive a composite SEI score produced an alpha reliability of .93.

Course Grade. Each student's final grade for the course taught by the targeted instructor was self-reported in response to the item, "What was your final letter grade in the course?" Responses were coded as A=4, B=3, C=2, D=1, and F=0. Statistical reliability for this single item was indeterminant. However, course grade correlated .41 ($p<.001$) with GPA, showing some consistency between students' overall college achievement and performance in the targeted course.

Data Analyses

The first hypothesis was tested using canonical correlation analysis. Since constituent definitions of teacher nonverbal immediacy and teacher enthusiasm showed considerable overlap, it was important to determine which elements of each construct contributed most to its relationship with the other construct. Canonical analysis provided this information. Hypotheses two and three were tested using analyses of variance crossing high, moderate, and low levels of teacher immediacy and teacher enthusiasm. This produced a matrix consistent with that of Lowman's two-dimensional model of teaching effectivness. Teacher immediacy represented the Interpersonal Rapport dimension, and teacher enthusiasm represented the Intellectual Excitement dimension. Research questions one and two were answered by examining standardized regression coefficients to determine the relative contributions of immediacy and enthusiasm to variations in SEI scores and course grades.

Results

Means, standard deviations, and ranges for respondents' scores on the measures of immediacy, enthusiasm, SEI, and course grade are displayed in Table 3, along with the zero-order correlations among the variables.

Hypothesis One

The first hypothesis predicted that a linear composite of teacher nonverbal immediacy variables would be significantly and positively related to a linear composite of teacher enthusiasm variables. Canonical correlation confirmed the prediction: Rc=.83, Wilks' Lamda=.159, FApp=7.00, $p<.001$, Rc2=.69. The nature of this relationship is seen in the structure of the two canonical variables. The canonical variable for teacher immediacy accounted for 43% of the variance in the composite of immediacy variables, and was comprised mainly of "smiles more" (r=.80), "more vocally expressive" (r=.77), "more distant from students" (r=.75), "smiles less" (r=.73), and "faces students" (r=.69). The remaining immediacy variables had

moderately high correlations with their canonical variable ranging from .54 to .64. The canonical variable for enthusiasm accounted for 71% of the variance among enthusiasm variables. All eight items shared substantial covariation with their canonical variable, but the greater contributors were facial enthusiasm (r=.89), enthusiastic body movements (r=.88), enthusiastic eye behavior (r=.87), and overall energy (r=.87). The remaining enthusiasm variables correlated from .73 to .85 with the canonical variable. Two other significant canonical correlations were obtained in the analysis for H1, but they were deemed nonmeaningful because each had an eigenvalue less than 1.00, together they contributed less than 10% more variance to the model, and both sets of items had their highest correlations with their respective first Rc, as described above.

With regard to H1, then, students' perceptions of their instructors' nonverbal immediacy and enthusiasm were closely related. The correlation seems to have been mostly due to the influence of facial and body actions of instructors, behaviors important to both constructs.

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Table 3 About Here

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Hypotheses Two and Three

The second and third hypotheses were derived from reasoning that perceptions of teacher immediacy and teacher enthusiasm would be reliable indicators of the Interpersonal Rapport and Intellectual Excitement dimensions, respectively, of Lowman's (1984) model of teaching effectiveness. To test these hypotheses within the two-dimensional framework required that the immediacy and enthusiasm distributions be divided into low, moderate, and high levels. This was done by classifying observations with scores beyond one standard deviation above the respective means as high in immediacy and enthusiasm. Observations with scores beyond one standard deviation below the mean were classified as low. Observations with scores within one standard deviation of the mean were classified as moderates (see Table 3 for means and SDs). Crossing the three levels of the two variables produced the cell frequencies displayed in Table 4. Since no observations could be classified into the low enthusiasm/high immediacy cell ("Socratics") and less than one percent were classified as high enthusiasm/low immediacy ("Intellectual Authorities"), these two cells were

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Table 4 About Here

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omitted by recoding the data to comprise a single, seven-cell factor. Two one-way analyses of variance were then conducted to test the hypotheses. This procedure gave the advantage of enabling a test of the matrix proposed by Lowman, but it did not provide tests of the main effects of each dimension (i.e., immediacy and enthusiasm). So, following the analysis across seven cells for each hypothesis, two additional analyses were run, one for three levels of immediacy and one for three levels of enthusiasm. These were done as tests of "main effects".

Hypothesis two was confirmed. There were significant differences in SEI among the combined enthusiasm/immediacy levels in the direction predicted ($F(6,418)=94.34$, $p<.01$, $R2=.58$). Table 5 displays the means. Although equivalent to one another, the three cells representing "Masterful" instructors were significantly higher in SEI than any of the remaining cells. The cell consisting of "Competents" was next highest, and it was signficantly higher than the three remaining cells representing "Less-than-Competent" instructors. A specific difference not predicted in the hypothesis was that the "Adequates" were significantly higher in SEI than were either the "Marginals" or the "Inadequates". Both main effects produced significant results in the expected direction. For immediacy on SEI, $F(2/420)=132.57$, $p<.001$, $R2=.39$; Low $M=12.29$ < Moderate $M=20.01$ < High $M=22.98$. For enthusiasm on SEI, $F(2/420)=238.83$, $p<.001$, $R2=.53$; Low $M=11.10$ < Moderate $M=20.18$ < High $M=23.30$.

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Table 5 About Here

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Hypothesis three was partially confirmed. There were significant differences in students' course grades in the direction predicted ($F(6/418)=10.60$, $p<.01$, $R2=.13$), but the mean for "Competents" was equivalent to that of the three "Masterful" cells. Still, the three cells representing "Less-than-Competents" were equivalent to one another and significantly lower than the other four cells, confirming H3b. Both main effects were significant, but only that for immediacy produced reliable differences across all three levels. For immediacy on grade, $F(2/420)=23.46$, $p<.001$, $R2=.10$; Low $M=2.76$ < Moderate $M=3.34$ < High $M=3.63$. For enthusiasm on grade, $F(2/420)=22.07$, $p<.001$, $R2=.10$; Low $M=2.74$ < Moderate $M=3.36$ = High $M=3.52$.

The foregoing results offer support for looking at immediacy and enthusiasm within the framework of Lowman's (1984) model. However, the main effects show that enthusiasm may be a stronger contributor to differences in SEI than is immediacy, but

that equivalent contributions may be made by the two constructs to course grade. Analyses for the research questions further clarified these findings.

Research Questions One and Two

The two research questions queried as to which construct, teacher nonverbal immediacy or teacher enthusiasm, would contribute more to student evaluation of instruction (RQ1) and to students' course grades (RQ2). Regression analyses were employed to answer the questions. Since immediacy and enthusiasm were correlated so highly, and since SEI and grade were also found to correlate significantly (r=.38), four separate regression models were invoked, one for each variable treated as the criterion and the remaining three variables serving as predictors. Reported first are results for the models employing SEI scores and grade as the criterion variables.

The model for SEI was significant: $F(3/420)=318.91$, $p<.001$, $R2=.70$. The standardized estimates for enthusiasm (Beta=.73, t=16.19, p<.01) and grade (Beta=.10, t=3.49, p<.01) were significant, but that for immediacy was just outside the conventional level of significance (Beta=.08, t=1.85, p=.07). Enthusiasm was the greater contributor to student ratings of instructor effectiveness. A separate analysis employing the eight enthusiasm variables and grade as predictors showed acceptance of students' ideas (Beta=.37, t=9.93, p<.01), word use (Beta=.16, t=4.20, p<.01), eyes (Beta=.14, t=3.04, p<.01), energy (Beta=.12, t=2.44, p=.01), grade (Beta=.08, t=3.11, p<.01), voice (Beta=.10, t=2.30, p<.05), and facial behavior (Beta=.09, t=1.98, p=.05) to contribute to SEI in an overall significant model ($F(9/420)=136.11$, $p<.001$, $R2=.75$).

The regression model accounted for 15% of the variance in students' final course grades ($F(3/420)=23.91$, $p<.001$). However, neither of the intended predictors contributed significantly to this function. For immediacy, Beta=.06, t<1.0; for enthusiasm, Beta=.06, t<1.0. Student evaluations of instruction produced the significant effect in the model: Beta=.28, t=3.45, p<.01. A separate analysis was done employing the five individual SEI items as predictors. The overall model was significant ($F(5/420)=16.00$, $p<.001$, $R2=.16$), with only one of the five items contributing: Utility of information presented by the instructor (Beta=.24, t=3.60, p<.001).

Some clarification of the preceding two models was found by looking at the models in which immediacy and enthusiasm were each treated as criterion. The model for immediacy ($F(3/420)=239.13$, $p<.001$, $R2=.63$) included only enthusiasm as a significant predictor (Beta=.70, t=13.23, p<.001). The model for enthusiasm ($F(3/420)=489.20$, $p<.001$, $R2=.79$) included both SEI (Beta=.53, t=16.19,

p<.001) and immediacy (Beta=.42, t=13.23, p<.001) as predictors. Figure 1 presents a path diagram of the significant effects derived from the four models just presented. It may be interpreted like this: Student's course grades were determined mainly by student perceptions of instructor effectiveness (SEI), which in turn was mainly a function of

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Figure 1 About Here

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enthusiasm. Perceptions of enthusiasm were partly dependent on perceptions of immediacy and partly on instructor effectiveness. Specifically, though, it was the ability of instructors to show the utility of their subject to students that constituted the influence of instructor effectiveness on grades.

Discussion

Our aim in this study was to examine the nature of the relationship between measures of perceived teacher nonverbal immediacy and enthusiasm, to establish the utility of immediacy and enthusiasm as referents for the Interpersonal Rapport and Intellectual Excitement dimensions of Lowman's model of effective college teaching, and to determine more precisely the relative contribution of each measure to student evaluations of instruction and course grades Results of the study are discussed in light of these concerns.

Canonical correlation analysis confirmed the hypothesis that perceptions of teacher immediacy and teacher enthusiasm would be significantly related. The 69% common variance in enthusiasm and immediacy substantiates their interdependence, but the amount is moderate enough to maintain the contention that each construct serves a different communicative function. It was argued that immediacy serves mainly a relational function and that enthusiasm serves more of a verbal-support function (Burgoon et. al., 1989). This argument is tenable given that smiling and vocal expression behaviors contributed to the immediacy canonical variable, and that enthusiastic facial and body movement and overall energy contributed to the enthusiasm canonical variable. The immediacy behaviors seem clearly associated with positive relational affect, as do the enthusiasm behaviors with attentiveness and interest (Burgoon et. al., 1989).

The nature of the relationship between immediacy and enthusiasm was further borne out in the regression analyses conducted in response to research questions one and two. Based on standardized Beta weights, a greater amount of variation in immediacy was due to variation in enthusiasm than there was variation in enthusiasm attributable

to immediacy. This indicates that enthusiasm is likely the more potent of the two factors in students' perceptions of teaching. It has a way of enhancing perceptions of immediacy, perhaps by invoking students' perceptions of involvement and concern on the part of the instructor. Truly enthusiastic instructors will probably come across as at least moderately friendly and inclusive. This would help explain why in the analyses for hypotheses two and three, less than one percent of the observations reflected an instructor who was both high in enthusiasm and low in immediacy ("Intellectual Authorities"). Immediacy contributed to perceptions in enthusiasm perhaps due to the afore mentioned association between specific behaviors of immediacy and enthusiasm. That is, the facial and vocal expressiveness associated with immediacy may be interpreted as somewhat enthusiastic. As such, highly immediate instructors probably appear at least moderately enthusiastic, which would explain the lack of any observations classified as high immediacy/low enthusiasm ("Socratics").

This study reasoned that the joint contributions of immediacy and enthusiasm to student outcomes could be framed in the context of Lowman's (1984) model of teaching effectiveness. The two dimensions comprising his model, Intellectual Excitement and Interpersonal Rapport, were believed to be analagous to teacher enthusiasm and teacher immediacy, respectively. Hypotheses two and three were thus derived, and tests of those hypotheses served as tests of the validity of the model as defined by immediacy and enthusiasm. Although only seven of the nine cells comprising Lowman's model could be examined, results confirmed the prediction of hypothesis two: The cells representing "Materful" instructors (crossing moderate and high levels of immediacy and enthusiasm) showed significantly higher SEI means than did either the "Competents" cell (moderate/moderate) or the "Less-than- Competents" cells (crossing low and moderate levels). "Competents" in turn were rated more favorably than were "Less-than-Competents". Within the latter cells, "Adequates" were rated slightly better than were "Marginals" and "Inadequates". The 58% of variance accounted for in SEI by the model was considerable, but only slightly more than attributable to enthusiasm as a main effect (53%). The main effect of immediacy accounted for 39% of the variance in SEI.

Results did not confirm hypothesis three in as straightforward a fashion, but the general trend was as predicted. "Masterfuls" and "Competents" were equivalent but significantly higher on grades than were "Less-than-Competents". The same was seen in the main effect for levels of enthusiasm on grade. However, the difference due to the immediacy main effect held across all three levels. Apparently, moderate enthusiasm works as well as high in differentiating teaching effectiveness, whereas students make a finer distinction in their perceptions of high and moderate immediacy. The finding of

equivalence between high and moderate levels corraborates other studies of enthusiasm (McKinney & Larkins, 1982; McKinney et. al., 1984). Only 13% of grade was attributable to the model, which was only slightly better than accounted for by either main effect
(10%). These findings, of course, are qualified by the regression analyses for H2 and H3, to which attention is turned again.

Several studies of late have established significant relationships between teacher immediacy and perceived cognitive learning (Gorham & Christophel, 1988; Gorham & Zakahi, 1990; Richmond et. al., 1987). That is, in each of those studies cognitive learning was operationalized in terms of students' perceptions of the extent of learning they had acquired in a course. Such measurement is based on the argument that grades are subject to too many other influences which may confound any relationship between grades and immediacy. Relatedly, at least one recent study found perceived amount of learning to be better predicted by SEI than was expected grade (Johnson & Christian, 1990). And Kelley & Gorham (1988) established an effect for immediacy on rote recall of newly learned information. Yet, we reasoned that students' course grades should be considered a dependent variable in this study because of their priority concern to students and others. However, unlike immediacy studies which have looked at perceived cognitive learning, the regression analyses run in this study revealed no significant contribution to actual course grade made by either teacher immediacy or teacher enthusiasm. The only contributor to grade was SEI. This is an important finding, though, for it further substantiates the importance of perceived teaching effectiveness to student performance (Beatty & Zahn, 1990; Johnson & Christian, 1990). Essentially, all else being equal, college students can be expected to perform better in classes where the teacher is perceived to be effective. This was evident in the analysis of grade differences across the levels of effectiveness defined by Lowman's (1984) model (hypothesis three). Moreover, supplemental analysis showed that rated utility of the content presented by the instructor was the single SEI item to contribute significantly to variation in grades. Another supplemental analysis revealed that acceptance of students' ideas and use of lively, vivid language were the elements of enthusiasm most predictive of SEI. Couple these findings, and the conclusion is reached that enthusiastic teaching involves clear, expressive, interactive presentation of course material in such a way that students easily grasp the applicability of the material. This is the very essence of the Intellectual Excitement dimension of Lowman's (1984) model of effective teaching. The general implication is that if better grades are associated with perceptions of more effective teaching, then enthusiastic teaching can be expected to ultimately impact

student learning outcomes. The importance of immediacy (Interpersonal Rapport) in this regard seems to be in its direct relationship to perceptions of enthusiasm. As such, the arousal eminating from the interaction of the two sets of behavior would be what affects ratings of SEI, and indirectly, learning. Exactly how this process operates should be the focus of future research (Stewart, 1989).

The moderately strong contribution made by SEI to enthusiasm was an interesting finding. One explanation is that response bias led respondents to rate items of the independent measure, enthusisam, in accordance with their SEI ratings. This explanation has some merit in that both sets of items came at the end of the questionnaire, with SEI items preceding enthusiasm items. So, perhaps, students who perceived their instructors to be more or less effective as teachers tended to rate their instructors as more or less enthusiastic. But this possible effect still makes conceptual sense given the larger amount of variation accounted for in SEI by enthusiasm. In other words, response bias or not, it makes sense that more effective instructors would be seen as more enthusiastic if enthusiasm does indeed have such a strong influence on perceptions of effectiveness. In fact, it has been argued elsewhere that the very nature of enthusiasm is a biasing factor in student ratings of instructor effectiveness and may be a moderator of SEI validity (Dowell & Neal, 1982).

The significant influence of students' course grades on SEI may very well be due to response set since ratings were made of target instructors retrospectively, after students had received grades for the courses in question. Some research confirms that grade knowledge does bias SEI (Dowell & Neal, 1982), but the evidence is based on zero-order correlations in most cases. The present finding of a grade effect is of little consequence given its magnitude relative to that of the SEI effect on grade (see Beatty & Zahn, 1990).

Although the analysis of main effects for immediacy and enthusiasm (H2) revealed significant differences in SEI across all three levels for both factors, a surprising finding was the lack of a significant contribution made by immediacy to SEI in the regression analyses. This stands in contrast to other communication research which has shown consistent significant correlations between teacher nonverbal immediacy and measures of student affect toward instruction (Andersen, 1979; Christophel, 1990; Gorham & Chrisophel, 1990; Gorham & Zakahi, 1990; Richmond et. al., 1987). One plausible explanation for the inconsistency may be attributed to differences in methodology. Most instructional communication studies employ simple correlation analysis to test hypotheses or research questions regarding immediacy and affective outcomes, and obtain coefficients in the range of what was found here: immediacy/SEI

r=.69. The difference is that our analyses looked at immediacy in conjunction with enthusiasm, weighted the influence of each variable in relation to the criterion, and revealed enthusiasm to be a moderator between enthusiasm and SEI. This does not call into question the findings of other immediacy studies. But it does signal the need for more research concerning the joint contributions of immediacy and other variables, such as Gorham & Christophel's (1990) study of immediacy and humor.

Results of this study provide at least two pieces of useful information for instructional communication research. First, one instance of the multivariate relationship between immediacy and enthusiasm is now established. The constructs are much related, but they operate in different ways to influence student responses to teaching and student learning. More research is needed before we fully understand their relationship. Second, the analysis based on Lowman's classifications provides a useful framework for future research and instructional practice. An important tenet underlying the model's development is that effective teaching is dependent on context. Lowman's model presupposes that some college teachers will be effective in some situations with some students, but not in others. McKeachie (1990) recently echoed this point in summarizing a review of research on college teaching: "The research indicated not only that there were general attributes of effective teaching, such as clarity of explanations and enthusiasm, but also that there are a variety of ways in which teachers can be effective" (p. 195). So, Lowman's model may be seen as a way to organize specific communication skills and principles conducive to effective teaching in a variety of contexts. Looking at the model based on the present study suggests, for instance, that one who wishes to be effective at teaching large lecture classes ("Masterful Facilitator") should have at least moderate ability to invoke perceptions of immediacy coupled with a strong ability to stimulate and excite students with enthusiasm.

Future research could further evaluate the utility of Lowman's model as a framework for instructional development by rationalizing the fit of other variables into the IE and IR dimensions. Dramatic/animated and friendly/attentive communicator styles are candidates for such study (Norton, 1983), as might be some of the dimensions of teacher credibility (Beatty & Zahn, 1990; McCroskey et. al., 1974). Verbal immediacy and clarity as indicators of IR and IE certainly deserve attention. Of course, future research could improve on the present study by working around certain limitations. Notably important is to gather such data with numerous students rating the same instuctor so as to enable the analysis of class means, as these often vary from data analyzed at the level of the individual student (Cranton & Smith, 1990). Another

improvement would be to utilize samples of students that are less skewed than was this one in GPA, classification, and grade. The
present data may well represent better achieving upperlevel students, which is unique, but they probably are not generalizable to the general student population in most universities.

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Table 1

Matrix of Teaching Effectiveness Classifications Derived from Crossing Intellectual Excitement and Interpersonal Rapport.

Intellectual Excitement (Enthusiasm)	Interpersonal Rapport (Immediacy)		
	Low	Moderate	High
High Extremely clear and exciting	-6- Intellectual Authorities Outstanding for some students and classes but not for others	-8- Masterful Lecturers Especially skilled at large intro classes	-9- Complete Masters Excellent for any student and situation
Moderate Reasonably clear and interesting	-3- Adequates Minimally adequate for many students Especially in lecture classes	-5- Competents Effective for and classes	-7- Masterful Facilitators most students skilled at smaller, more advanced classes
Low Vague and dull	-1- Inadequates Unable to present material or motivate students well	-2- Marginals Unable to present material well but will be liked by some students	-4- Socratics Outstanding for some students and situations but not most

Note. Adapted from Mastering the Techniques of Teaching by J. Lowman, 1984, p. 20. Copyright 1984 by Jossey-Bass Inc., Publishers. Permission pending.

Table 2

Items from the Behavioral Indicants of Immediacy Scales as Used in the Study.

On a scale of 1=strongly disagree, 2=disagree, 3=neutral, 4=agree, or 5=strongly agree, rate your level of agreement with each of the following statements about your instructor. Circle the appropriate number to the right of each statement to indicate your level of agreement with it.

THE INSTRUCTOR:

1. Engaged in more eye contact with me than most other instrucotrs.	5 4 3 2 1
2. Gestured more while teaching than most other instructors.	5 4 3 2 1
3. Engaged in less movement while teaching than most other instructors.	5 4 3 2 1
4. Smiled more during class than most other instructors.	5 4 3 2 1
5. Was more vocally expressive while teaching than most other instructors.	5 4 3 2 1
6. Was more distant from students while teaching than most other instructors.	5 4 3 2 1
7. Had a more tense body position while teaching than most other instructors.	5 4 3 2 1
8. Faced students in a less direct way while teaching than most other instructors.	5 4 3 2 1
9. Had a more relaxed body position while teaching than most other instructors.	5 4 3 2 1
10. Faced students in a more direct way while teaching than most other instructors.	5 4 3 2 1
11. Engaged in less eye contact with me when teaching than most other instructors.	5 4 3 2 1
12. Smiled less during class than most other instructors.	5 4 3 2 1
13. Gestured less while teaching than most other instructors.	5 4 3 2 1
14. Engaged in more movement while teaching than most other instructors.	5 4 3 2 1
15. Was less vocally expressive while teaching than most other instructors.	5 4 3 2 1

Note. Items 3, 6, 7, 8, 11, 12, 13, and 15 were reverse scored.

Table 3

Simple Statistics and Correlations Among the Primary Variables (N=421)

	Immediacy	Enthusiasm	SEI[a]	Grade
Immediacy	1.00			
Enthusiasm	.79	1.00		
SEI	.69	.83	1.00	
Grade	.31	.34	.38	1.00
Mean	53.67	29.81	18.99	3.27
SD	11.64	8.18	5.38	.84
Min	18.00	8.00	5.00	0.00
Max	75.00	40.00	25.00	4.00

Note. All correlations are significant, $p<.001$.

[a]SEI is Student Evaluations of Instruction.

Table 4

Frequencies of Observations After Crossing Three Levels of Immediacy (Interpersonal Rapport) and Enthusiasm (Intellectual Excitement).

Enthusiasm (Intellectual Excitement)	Immediacy (Interpersonal Rapport)		
	Low	Moderate	High
High	2 (0.48)	30 (7.13)	35 (8.31)
Moderate	19 (4.51)	234 (55.58)	23 (5.46)
Low	57 (13.54)	21 (4.99)	0.00 (0.00)

Note. Cells in the table correspond to those in Table 1.

Table 5

Mean Differences in SEI and Grades Among the Seven Cells Representing Lowman's Model (Crossing Levels of Immediacy and Enthusiasm).

Lowman Cell[a]	Enthusiasm Level	Immediacy Level	Mean SEI	Mean Grade
CM	High	High	23.11[a]	3.57[a]
ML	High	Moderate	23.53[a]	3.50[a]
MF	Moderate	High	22.78[a]	3.73[a]
CO	Moderate	Moderate	20.29[b]	3.38[a]
AD	Moderate	Low	15.68[c]	2.74[b]
MA	Low	Moderate	11.95[d]	2.71[b]
IN	Low	Low	10.79[d]	2.75[b]

Note. Means in the same column with different subscripts are significantly different, $p<.05$.

[a]Cell names correspond to those in Table 1: CM=Complete Masters, ML=Masterful Lecturers, MF=Masterful Facilitators, CO=Competents, AD=Adequates, MA=Marginals, IN=Inadequates; Intellectual Authorities and Socratics were omitted due to insufficient cell size.

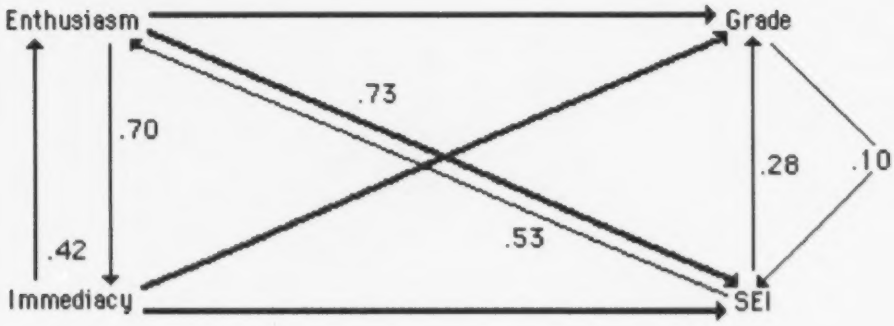
Enthusiasm
Grade
.73
.70
.28
.10
.42
.53
Immediacy
SEI

Figure Caption

Figure 1. Path diagram showing significant Beta coefficients associated with each variable as a criterion of each other variable. (Broader paths are the effects of primary interest.)